



Algebra

A Using Written Rules

- 1a) A telephone company charges 15¢ per minute for the first 5 minutes, after 5 minutes the call costs 10¢ per minute. Calculate the cost of a 12 minute call.

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- b) A mail order CD club has the following deal : The first CD costs \$30, each following CD costs \$25. Postage for each package is fixed at \$5.
Tom orders 4 CDs. How much is charged?

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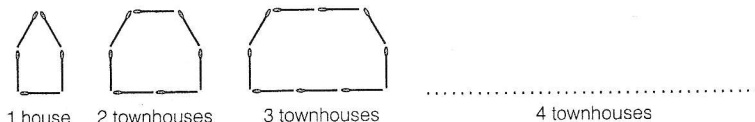
- 2 Natalia sits in a group of four. When she shares her lollies with her group the rule is; 'I divide the number of lollies by 4 and the remainder is added to my share.'
How many lollies does Natalia get if she has 35 lollies to share?

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C Townhouses

- 1 Mauria uses matchsticks to make these townhouses.



- a) Draw the diagram with 4 townhouses.
b) Fill in the table.
c) Complete the written rule for this pattern.

number of houses	1	2	3	4	5
number of matches	5				

'The first house needs matches, for every extra house we need more matches.'

- d) How many matches are needed for a row of 20 townhouses?

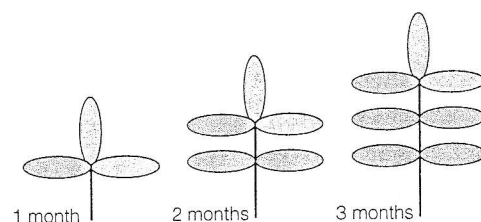
- 2 These diagrams show the growth of a twig. Complete :

1 month - number of leaves = $2 \times 1 + 1$

2 months - number of leaves = $2 \times 2 + 1$

3 months - number of leaves =

n months - Formula : $L =$



B Making Up a Formula

Example : At the cinema a student ticket costs \$2 more than a children's ticket. Write a formula using s for cost of a student ticket and c for the cost of a children's ticket.

Answer : formula $s = c + 2$

- 1 When children play musical chairs there is always one less chair than there are children.
a) How many chairs with 10 kids?
b) If we use c for number of chairs and k for number of kids, the formula is : $c =$
2a) Cinderella must shine 16 shoes. How many pairs of shoes is that?
b) Using s for number of shoes and p for pairs of shoes, the formula is : $p =$
3 In a card game each player gets 5 cards. Using c for number of cards dealt and n for number of players, the formula is : $c =$